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YEAR 2000 COMPLIANCE OF THE STANDOFF LAND ATTACK MISSILE

Report No. 99-157

May 14, 1999

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#### INSPECTOR GENERAL DEPARTMENT OF DEFENSE 400 ARMY NAVY DRIVE ARLINGTON, VIRGINIA 22202

May 14, 1999

MEMORANDUM FOR COMMANDER IN CHIEF, U.S. PACIFIC COMMAND
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL
MANAGEMENT AND COMPTROLLER)

SUBJECT: Audit Report on Year 2000 Compliance of the Standoff Land Attack Missile (Report No. 99-157)

We are providing this report for your information and use. This is one in a series of reports being issued by the Inspector General, DoD, in accordance with an informal partnership with the Chief Information Officer, DoD, to monitor efforts to address the year 2000 computing challenge. Because this report contains no findings or recommendations, no written comments were required, and none were received. Therefore, we are publishing this report in final form.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. Joseph Doyle at (703) 604-9348 (DSN 664-9348) or Mr. John Yonaitis, at (703) 604-9340 (DSN 664-9340). See Appendix B for the report distribution. The audit team members are listed inside the back cover.

Robert J. Lieberman Assistant Inspector General for Auditing

#### Office of the Inspector General, DoD

**Report No. 99-157**Project No. 9CC-0086.03

May 14, 1999

# Year 2000 Compliance of the Standoff Land Attack Missile

#### **Executive Summary**

Introduction. This is one in a series of reports being issued by the Inspector General, DoD, in accordance with an informal partnership with the Chief Information Officer, DoD, to monitor DoD efforts to address the year 2000 computing challenge. For a list of audit projects addressing the issue, see the year 2000 webpage on the IGnet at http://www.ignet.gov.

Objectives. The overall audit objective was to assess the status of Military Department and Defense agency mission critical systems, identified by the U.S. Pacific Command and U.S. Forces Korea as being of particular importance to them, in attaining compliance with year 2000 conversion requirements. Specifically, we reviewed the progress of each system toward year 2000 compliance, testing and integration of modifications, and contingency plans. For this report, we reviewed the Navy Standoff Land Attack Missile system, baseline version, and three interface systems.

Results. The Standoff Land Attack Missile system, baseline version, was appropriately certified year 2000 compliant in November 1998. The three interface systems were appropriately certified year 2000 compliant in December 1998 and March 1999. The program executive officer followed the Navy year 2000 certification process and documented the system verification, testing, and contingency documentation before certification.

Management Comments. We provided a draft of this report on April 16, 1999. Because this report contains no findings or recommendations, written comments were not required, and none were received. Therefore, we are publishing this report in final form.

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## **Background**

The Executive Order, "Year 2000 Conversion," February 4, 1998, mandates that Federal agencies do what is necessary to ensure that no critical Federal program experiences disruption because of the year 2000 (Y2K) computing problem. The Executive Order also requires that the head of each agency ensure that efforts to address Y2K issues receive the highest priority.

The Assistant Secretary of Defense (Command, Control, Communications and Intelligence) is the principal staff assistant responsible for the DoD Y2K management plan. The DoD Y2K Management Plan, version 2, December 1998, provides guidance for testing and certifying systems, and preparing contingency plans for those systems, and stipulates the criteria that DoD Components must use to meet reporting requirements.

The U.S. Navy Year 2000 Action Plan, September 1998, provides the guidance for planning and implementing all information technology, software and systems in the Navy that face a Y2K problem. The Navy must ensure the Y2K readiness of the Standoff Land Attack Missile system, baseline version (SLAM B/L).

The SLAM B/L is a medium-to long-range precision strike weapon that is launched from the Navy F/A-18 Hornet, and P-3C Orion aircraft using an onboard guidance system. SLAM B/L is also an infrared variant of the Harpoon missile, having conventional warhead capability of reaching land targets exceeding 50 nautical miles. The SLAM B/L interfaces with three systems used on the F/A-18 and the P-3 aircraft.

## **Objectives**

The overall objective was to assess the status of Military Department and Defense agency mission critical systems identified by the U.S. Pacific Command, and U.S. Forces Korea as being of particular importance to them, in attaining compliance with year 2000 conversion requirements. Specifically, we reviewed the progress of each system toward year 2000 compliance, testing and integration of modifications, and contingency plans. For this report, we reviewed the Navy SLAM B/L. See Appendix A for a discussion of the audit scope, methodology, and summary of prior coverage.

# Year 2000 Compliance of the Standoff Land Attack Missile

The Standoff Land Attack Missile system, baseline version (SLAM B/L) was appropriately certified as year 2000 compliant in November 1998, and the three interface systems were certified as year 2000 compliant in December 1998, and March 1999. The SLAM B/L program executive officer followed the Navy certification process and documented verification, testing, interfaces, and contingency management plan before certification of SLAM B/L. As a result, the Navy minimized the risk of year 2000 failure of the SLAM B/L.

# Y2K Compliance of SLAM B/L

The Naval Air Systems Command Program Executive Officer, Cruise Missiles and Joint Unmanned Aerial Vehicles, is responsible for the life cycle management of SLAM B/L. The Naval Air Warfare Center, Weapons Division, China Lake, California, conducted the year 2000 tests of SLAM B/L, and the interfacing systems starting in March 1996. The program executive officer certified SLAM B/L as year 2000 compliant in November 1998.

SLAM B/L Tests. The Naval Air Warfare Center, Weapons Division, China Lake, California, conducted the year 2000 tests of SLAM B/L. Those tests included planning valid missions using "rollover" events for the time of launch and time on target. In addition, the testing included loading global positioning system data into the tactical automated mission planning system to enable realistic testing of the missile. Each missile contained four possible missions: three preset and one target of opportunity. The SLAM B/L passed the tests and was determined to be Y2K compliant.

SLAM B/L Interfaces. The SLAM B/L interfaces with three other systems. The three systems are the F/A-18 Command Launch System, the P-3 Real Time Mission Planning System, and the Tactical Automated Mission Planning System. The Naval Air Warfare Center, Weapons Division, China Lake, California, successfully conducted the Y2K interface rollover data entry tests on the three systems in December 1998, and March 1999, and determined them to be Y2K compliant with SLAM B/L.

## **Contingency Management Plan**

The Naval Air Systems Command Program Executive Officer identified risks to the SLAM B/L and developed a series of contingency management plans to correct potential problems with the SLAM B/L or its interfaces. The contingency management plans covered procedures for invoking and operating in a contingency operating mode, procedures for returning to normal operating mode, and procedures for recovering lost or damaged data. The plans identified specific risks, the probability of occurrence, and the corrective action to be taken.

#### Conclusion

The SLAM B/L program executive officer complied with the DoD and Navy guidance when processing the SLAM B/L Y2K certification. The SLAM B/L has been determined to be Y2K compliant. Therefore, we have no recommendations.

# Appendix A. Audit Process

This is one in a series of reports being issued by the Inspector General, DoD, in accordance with an informal partnership with the Chief Information Officer, DoD, to monitor DoD efforts to address the year 2000 computing challenge. For a list of audit projects addressing the issue, see the Y2K web page on the IGnet at http://www.ignet.gov.

# Scope

We reviewed and evaluated the SLAM B/L, and interfacing systems. We visited the Naval Air Systems Command Program Executive Officer responsible for the SLAM B/L to obtain the year 2000 status of the mission critical system.

DoD-wide Corporate Level Government Performance and Results Act Goals. In response to the Government Performance Results Act, the Department of Defense has established 6 DoD-wide corporate level performance objectives and 14 goals for meeting these objectives. This report pertains to achievement of the following objectives and goals.

Objective: Prepare now for an uncertain future. Goal: Pursue a focused modernization effort that maintains U.S. qualitative superiority in key war fighting capabilities. (DoD-3)

DoD Functional Area Reform Goals. Most major DoD functional areas have also established performance improvement reform objectives and goals. This report pertains to achievement of the following functional area objectives and goals.

- Information Technology Management Functional Area.

  Objective: Become a mission partner. Goal: Serve mission information users as customers. (ITM-1.2)
- Information Technology Management Functional Area.

  Objective: Provide services that satisfy customer information needs.

  Goal: Modernize and integrate DoD information infrastructure.

  (ITM-2.2)
- Information Technology Management Functional Area.

  Objective: Provide services that satisfy customer information needs.

  Goal: Upgrade technology base. (ITM-2.3)

General Accounting Office High Risk Area. In its identification of high-risk areas, the General Accounting Office has specifically designated risk in resolution of the Y2K problem as high. This report provides coverage of that problem and the overall Information Management and Technology high risk area.

## Methodology

Audit Type, Dates, and Standards. We performed this program audit from March 16, 1999 to April 16, 1999, in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. We did not use computer-processed data to perform this audit.

Contacts During the Audit. We visited or contacted individuals and organizations within DoD, Brandes Associates, Inc., DCS Co., Prometheus Inc, and Raytheon Systems Co. Further details are available upon request.

Management Control Program. We did not review the management control program related to the overall audit objective because DoD recognized the Y2K issue as a material management control weakness area in the FY 1998 Annual Statement of Assurance.

## **Summary of Prior Coverage**

The General Accounting Office and the Inspector General, DoD, have conducted multiple reviews related to the Y2K issues. General Accounting Office reports can be accessed over the Internet at http://www.gao.gov. Inspector General, DoD, reports can be accessed over the Internet at http://www.dodig.osd.mil.

# Appendix B. Report Distribution

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Senate Committee on Armed Services

Senate Committee on Governmental Affairs

Senate Committee on Intelligence

Senate Special Committee on the Year 2000 Technology Problem

House Committee on Appropriations

House Subcommittee on National Security, Committee on Appropriations

House Committee on Armed Services

House Committee on Government Reform

House Subcommittee on Government Management, Information, and Technology,

Committee on Government Reform

House Subcommittee on National Security, Veterans Affairs, and International Relations, Committee on Government Reform

House Subcommittee on Technology, Committee on Science

House Permanent Select Committee on Intelligence

# **Audit Team Members**

The Contract Management Directorate, Office of the Assistant Inspector General for Auditing, DoD, prepared this report.

Paul J. Granetto Joseph P. Doyle John Yonaitis Charles R. Johnson Michael J. Guagliano

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